

Claims

1. A building panel comprising a rectangular frame having one face covered in a water resistant board with the other face also covered in a board material, the frame having top and bottom rails which are joined together by a plurality of spaced apart wood composite "I" beams extending therebetween characterised in that two of said I beams also form the sides of the frame and have recessed sides facing outwardly of the panel, with the space between the boards being filled with thermal insulation.
2. A panel as claimed in Claim 1 characterised in that said one face in use faces externally of the building and is made from OSB (oriented strand board).
3. A panel as claimed in Claim 2 characterised in that said other face in use faces internally of the building and may comprises board having a plastics material layer on its internal surface.
4. A panel as claimed in Claim 1 characterised in that the I beams have upper and lower flanges formed from plywood and a web comprising a rigid cellular material sandwiched between two layers of board.

5. A panel as claimed in Claim 1 characterised in that intermediate support columns extend between the top and bottom rails and are located one column between each pair of adjacent beams, each column comprising a rigid cellular centre having sides formed from a suitable board.

6. A panel as claimed in Claim 5 characterised in that at least some of said columns have a hollow conduit extending along the middle of the column for its full length, the conduit aligning with apertures formed in either or both the top and bottom rails.

7. A panel as claimed in Claim 6 characterised in that the hollow conduits are rectangular and are lined on all sides by board.

8. A panel as claimed in Claim 7 wherein the top and bottom rails are "U section rails having substantially the same cross section with a flat base with arms extending normally thereof with a recess therebetween, the top rail having the flat base presented outwardly of the panel and the bottom rail having the recess presented outwardly of the panel.

9. A panel as claimed in Claims 1 wherein the recessed sides of said two I beams are provided with shouldered dowels longitudinally spaced along said I beams and secured thereto, the dowels in use for fixing a linking post to a panel.

10. An internal wall or partition for a building comprises adjacent wall panels according to Claim 1 and which are linked together by posts having side portions which are engagable within the recessed sides of the I beams.

11. A wall as claimed in Claim 10 characterised in that the posts are formed with longitudinal tongues which are a slide fit within the recessed sides of the I beams.

12. A wall comprising adjacent panels as claimed in Claim 9 and which are linked together by posts accommodated within the recessed sides of the I beams characterised in that the posts have a box section that comprising plywood sidewalls and central cavity filled with a rigid cellular material.

apertures which are engagable with shouldered dowels secured to the I-beams for fixing the post to a panel.

14. A wall as claimed in Claim 13 characterised in that clips are located within each post in alignment with each key hole aperture.

15. A wall as claimed in Claim 14 characterised in that each clip is formed in resilient material with a portion inclined internally of the post and has a second key hole aperture therein so that when a dowel engages in a key-hole, longitudinal displacement of the post will tend to pull the post and respective panel together.

16. A wall as claimed in Claim 14 characterised in that each post is provided with an alignment mark at its upper end to both align and orientate the key-hole clips on the post with respect to the dowels on the panel.

17. A post for linking together two panels as claimed in claim 9 wherein the post has a rectangular cross-section with a plurality of keyhole apertures spaced along its length and aligning with said dowels, with an alignment means attached to the upper portion of the post for alignment of said apertures and dowels, the alignment

means being removable when the post is driven into its operative position.

18. A method of constructing an internal wall or partition of a building in which panels according to Claim 1 are fixed to sole plates attached to a base of a building by engaging the recessed bottom rail over the sole plate and passing fasteners through both the arms of the bottom rail and the sole plate.

19. A method of constructing an internal wall or partition of a building in which panels according to Claims 1 are linked together by posts having side portions which are engagable within the recessed sides of the I beams

20. A method as claimed in Claim 19 characterised further by the posts being fixed to the panels by means of shouldered dowels secured to the I-beams engaging in aligned key-hole apertures on clips secured on the posts.

21. A method as claimed in Claim 18, wherein panels may be assembled top to bottom with the bottom rail of at least one upper panel engaging a intermediate plywood

strip attached to the top rail of at least one lower panel.

22. A method of building an internal wall or partition of a building in which panels according to Claim 6 are assembled top to bottom with the bottom rail of an upper panel engaging an intermediate wooden strip attached to the top rail of the lower panel strip, wherein said intermediate strip has apertures therein that align with the apertures in the top and bottom rails of said panels, forming conduits that run vertically through the walls.